

Application No. 10/021,782

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

- forming a gate electrode over a substrate;
- introducing ions into the substrate to form source/drain regions in the substrate proximate to the gate electrode;
- activating a portion of the source/drain regions by laser thermal annealing using a laser;
- moving the laser and the substrate relative to one another; and
- activating another portion of the source/drain regions by laser thermal annealing using the laser, wherein

- each pulse from the laser respectively irradiates non-identical portions of the source/drain regions, and
- each portion of the source/drain regions receives more than one single pulse of energy from the laser.

Claims 2-4 (Cancelled)

5. (Currently Amended) A ~~The invention according to claim 1,~~ method of manufacturing a semiconductor device, comprising the steps of:

- forming a gate electrode over a substrate;
- introducing ions into the substrate to form source/drain regions in the substrate proximate to the gate electrode;

Application No. 10/021,782

activating a portion of the source/drain regions by laser thermal annealing using a laser;
moving the laser and the substrate relative to one another; and
activating another portion of the source/drain regions by laser thermal annealing using the
laser, wherein
each pulse from the laser respectively irradiates non-identical portions of the source/drain
regions, and
a spot area of the laser on the substrate is less than 50 millimeters².

6. (Original) A method of manufacturing a semiconductor device, comprising the steps
of:
forming a gate electrode over a substrate;
introducing ions into the substrate to form source/drain regions in the substrate proximate
to the gate electrode;
activating a portion of the source/drain regions by laser thermal annealing using a laser;
moving the laser and the substrate relative to one another; and
activating another portion of the source/drain regions by laser thermal annealing using the
laser,
wherein a spot area of the laser on the substrate is less than 50 millimeters².

7. (Original) The invention according to claim 6, wherein each portion of the
source/drain regions receives no more than one single pulse of energy from the laser.

Application No. 10/021,782

8. (Original) The invention according to claim 6, wherein each portion of the source/drain regions receives more than one single pulse of energy from the laser.

9. (Original) The invention according to claim 8, wherein each pulse from the laser respectively irradiates non-identical portions of the source/drain regions.

10. (Original) The invention according to claim 6, wherein the laser and the substrate move relative to one another at a constant velocity.

11. (Currently Amended) A method of manufacturing a semiconductor device, comprising the steps of:

forming a gate electrode over a substrate;

introducing ions into the substrate to form source/drain regions in the substrate proximate to the gate electrode;

activating a portion of the source/drain regions by laser thermal annealing using a pulse of laser energy from a laser;

moving the laser and the substrate relative to one another; and

activating another portion of the source/drain regions by laser thermal annealing using another pulse of laser energy from the laser,

wherein the laser and the substrate move relative to one another after each pulse of laser energy and each portion of the source/drain regions receives more than one single pulse of energy from the laser, and

Application No. 10/021,782

each pulse from the laser respectively irradiates non-identical portions of the source/drain regions.

Claim 12 (Cancelled)

13. (Currently Amended) A method of manufacturing a semiconductor device, The invention according to claim 11, comprising the steps of:

forming a gate electrode over a substrate;

introducing ions into the substrate to form source/drain regions in the substrate proximate to the gate electrode;

activating a portion of the source/drain regions by laser thermal annealing using a pulse of laser energy from a laser;

moving the laser and the substrate relative to one another; and

activating another portion of the source/drain regions by laser thermal annealing using another pulse of laser energy from the laser, wherein

the laser and the substrate move relative to one another after each pulse of laser energy and each portion of the source/drain regions receives more than one single pulse of energy from the laser, and

a spot area of the laser on the substrate is less than 50 millimeters².

Claim 14 (Cancelled)